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ABSTRACT

Student vocational interest and agricultural business surveys were conducted in Berks County, Pennsylvania to gauge career opportunities in off-farm agricultural occupations. The seven categories of businesses surveyed included agriculture supplies, agriculture mechanics, horticulture mechanics, floriculture, landscaping, turf, and garden center sales. Over 25,000 students and parents were surveyed, but a low percentage of returns failed to reveal accurately student career interests. The business surveys indicated increased demand for training in ornamental horticulture. To meet this educational demand, a pilot program of curriculum development was established for selected high school seniors through the cooperative efforts of Berks County vocational-technical schools and Nolde State Park Environmental Education Center. The program included classroom instruction in air and water pollution, land use and management, energy and waste disposal problems, and wildlife concerns; visits to resource facilities; hands-on experience; seminars with resource personnel; and student research projects. As a result of student pretesting and posttesting, employer evaluations, and student questionnaire responses, an ornamental horticulture pilot program was initiated in Berks County vocational-technical schools. Survey instruments, results, and program related materials are appended. (KN)

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Final Report

DEVELOPMENTAL RESEARCH OF OFF-FARM AGRICULTURAL BUSINESSES IN BERKS COUNTY, PENNSYLVANIA

Project Number 19-3014

C. Robert Zimmerman, Director

Berks County Vocational - Technical Schools

Court House

Reading, Pa.

(VT-102-355)

Gerald M. Kiger

Research Coordinator

June 1974

Pennsylvania Department of Education
Bureau of Vocational Education
Research Coordinating Unit
Harrisburg, Pennsylvania

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INTRODUCTION

The Vocational Education Act of 1963 and the amendments to the Act in 1968 brought about a revision of the objectives for Vocational and Technical education in Agriculture. The broadened areas of responsibility as set forth by the U.S. Office of Education included the development of Agricultural competencies needed by individuals engaged in or preparing to engage in Agricultural occupations other than production agriculture. [1]

Results of a survey of 259 businesses in Berks County conducted in 1965 as part of a Pennsylvania Agricultural Occupations Study [2] revealed that 1763 persons were employed in non-farming jobs where agricultural competencies were needed. In addition, this study by the Department of Public Instruction and Pennsylvania State University revealed that more than 800 persons would be hired in the following five years in these businesses. Furthermore, this survey, which covered 29 counties including Berks, showed a substantial growth in off-farm employment opportunities throughout the state of Pennsylvania.

1. Weyant, J. Thomas; Hoover, Norman K.; and McClay, David R. An Introduction to Agricultural Business and Industry; Teachers guide. 3rd ed. Interstate Printers and Publishers, 1970

2. Hoover, Norman; McClay, David R. and Stevens, Glenn Z. Off-Farm Occupations in Pennsylvania. (Teacher Education Research Series, Vol. 7, No. 1, 1966) Pennsylvania State University and Dept. of Public Instruction, 1966.

However, this study is dated and its current reliability is questionable when considered in conjunction with today's rapidly changing employment picture. To establish current, factual data, new field research is necessary. Feeling this need for an updated survey which would identify the employment opportunities that now exist, the Berks Vocational-Technical Schools submitted a proposal for developmental research in Berks County. The objectives of this research project were:

(1) To determine employee needs of industry for trained or semi-trained personnel;

(2) To determine the competencies needed by employees of the agricultural businesses;

(3) To determine interest and availability of students for this training;

(4) To determine adult program opportunities.

Upon approval and funding of this proposal in 1972, a certified and experienced vocational agriculture teacher was employed to serve as research coordinator in conducting a survey of agricultural businesses to determine their needs for trained employees and in surveying students to find their interests in these lines of work. Because Berks Vocational-Technical Schools aim at supplying business and industry in the community with trained, competent personnel, data was collected specifically for analysis in reference to the stated problem, "Is the need of business and industry sufficient to warrant the establishment of a new course or courses

in the Vocational-Technical Schools or other training centers in Berks County?" Identification of the specific needs of business and industry and of students' interests makes it possible to train students for specific occupations in agricultural businesses and enables students to know what specific training is needed for various occupations.

Agricultural businesses in Berks County were classified by type of business, and definitions of these classes were based on the standard terminology for curriculum and instruction in local and state school systems as established by the U. S. Office of Education code in 1969. The seven catagories applied to Berks County businesses were: Agriculture Supplies, Agriculture Mechanics, Horticulture Mechanics; Floriculture; Landscaping; Turf; Garden Center Sales. Information about these businesses was secured by use of a questionnaire (See Appendix I-A) through personal interviews with owners or managers.

A survey of students to evaluate their interests in entering occupations in off-farm agriculture and in undertaking the training needed for them was conducted through a computer-readable questionnaire (See Appendix II-A) distributed in May 1973, to over 25,000 students in schools in Berks County and the City of Reading. This form also surveyed adults by including a section directed at parents. The procedure used in conducting the survey required that students take the questionnaire home for parent review and return it to the school. Although this procedure resulted in the

collection of responses from interested adults, it failed to accomplish its primary objective of collecting data revealing student career interests. A low percent of returns proved that timing was wrong in May, and another survey (one completed in the school and not taken home) was conducted in 16 county schools in December 1973. Results were far more reliable, and data in 16 Agricultural occupations was summarized by grade.

The second phase of this project involved the development of curriculum materials to address the needs of the Agricultural businesses and of the students as determined by the data collected. It also involved recruiting students, planning instructional laboratories, and establishing cooperative work experience stations to serve students and industry. This phase was put into operation when analysis of results of the student survey revealed high levels of interest in the general fields of forestry, wildlife conservation, ecology and environmental control technology.

Instructional resources were available at Nolde Forest Environmental Education Center, and a specialized course for high school seniors received support from Nolde Forest State Park. A pilot program was designed to familiarize participating students with natural resource problems and environmental needs and issues and to provide them with a knowledge of the training requirements, duties and responsibilities in careers open in environmental areas, information on which they could base their selection of a definite vocational goal. The pilot program term was established for

January 21, 1974, through May 24, 1974 with program sessions held daily Monday through Friday from 12:30 P.M. to 3:30 P.M. Credit for the course was determined by the home school; however, the suggested equivalency was 1.5 credits in vocational-technical work. An application form, essay, and course transcript from the home school was required for each senior desiring to participate in the program. (See Appendix III-A).

Both the first and second phases of the project were completed by June, 1974. Results of the surveys in phase one and the pilot program in phase two are reported in detail in the following discussion of research findings.

Surveying Industry Needs and Student Interests

Data during the survey was gathered from 200 businesses in Berks County. Table I shows the number of businesses in each occupational catagory. It is to be expected in an agricultural county such as Berks that the greatest number of full-time employees appears in Agriculture Supplies. However, even in this heavy farming area, it is floriculture that accounts for the highest total number of employees (full-time and part-time). The entire field of horticulture represents an area of tremendous employment growth when compared to the 1965 survey. In 1965 ornamental horticulture represented approximately 30% of the 259 businesses surveyed and only about 20% of the total 3,928 employees in those businesses. In the 1973 survey, horticultural businesses represent 76% of the 200 businesses surveyed and the number of employees account for more than 60% of the full-time personnel and nearly 90% of the part-time employees or approximately 70% of the total 1,209 employees.

Consideration of the future in this rapidly growing field shows that the annual need for full-time employees is 70% of the total employment picture in off-farm agricultural businesses. The 57 graduates from the vocational agriculture curriculum in the Berks County Vocational Technical Schools will fill only 57% of the positions open for full-time employment in farming and off-farm industries. Because none of the part-time employment needs can be addressed by graduates in 1973, 153 part-time positions will be vacant or filled with untrained personnel.

TABLE I

BERKS COUNTY SURVEY OF OFF-FARM AGRICULTURAL BUSINESSES

TYPE OF BUSINESS	NO. OF BUSINESSES	NO. OF FULL-TIME EMPLOYEES	NO. OF PART-TIME EMPLOYEES
Agriculture Supplies	28	225	25
Agriculture Mechanics	19	114	12
Horticulture Mechanics	21	59	17
Floriculture	43	156	86
Landscaping	37	126	79
Turf	23	75	92
Garden Center Sales	29	93	50
TOTAL	200	848	361

PROJECTED ANNUAL EMPLOYMENT NEEDS IN OFF-FARM AGRICULTURE

	FULL-TIME	PART-TIME SEASONAL
Agriculture Supplies	13	3
Agriculture Mechanics	7	2
Horticulture Mechanics	4	3
Floriculture	9	12
Landscaping	12	31
Turf	11	23
Garden Center Sales	11	12
TOTAL	67	86

PROJECTED ANNUAL EMPLOYMENT NEEDS IN AGRICULTURE

Production Farming	32	25
Supplies and Mechanics	20	5
Horticulture	47	81
TOTAL	99	111

No of Students graduating from Vocational Agriculture Dept.---1973 - 57
No of additional graduates needed - - 42

Positions in these 200 businesses fall into the same six levels of employment revealed in the 1965 survey: professional, managerial, clerical, technical, sales and services. Table II shows job titles in the seven occupational catagories. A change is reflected in the 1973 survey where the professional level is shown only in the results from the landscaping businesses while the 1965 survey showed no professionals in the horticultural area.

Competencies for many of these job positions have been identified through various studies and are well defined in such publications as the task analysis study of the Ornamental Horticulture Industry in New York State.[3] Analysis of specific job positions can be conducted for job titles where detailed information hampers identification of needed competencies (See Appendix I-B for an example of one such in-depth analysis).

3. Berky, Arthur L., and Drake, William E.
An Analysis of Tasks Performed in the Ornamental Horticulture Industry. New York State College of Agriculture and Life Sciences at Cornell University Itaca, New York, - June 1972

The student career interest survey conducted in December, 1973, yielded the results displayed on Table III. It reveals that today's youth continue to show concern for the environment and express a desire to become involved in efforts to protect our natural resources. More than one-third of the 1,321 responses reflect interest in the areas of forestry and wildlife conservation. As can be expected in an agricultural county such as Berks, production farming is a high interest area. And it is not surprising to find that many young adults in ninth grade express a desire to enter the field of veterinary medicine; by the twelfth grade interest in this area has decreased considerably -- perhaps, due to a more realistic view of the qualifications and training needed for entry into this profession.

However, the choice of horticultural occupations, such as "florist", "landscaping" and "nursery" does not greatly differ between ninth grade (23 students) and twelfth grade (27 students) and what difference there is reflects an upward trend. Note too that the interest in food processing increased with a jump from seven students to twelve students. Also, interest in environmental control technology remains relatively stable through all four grades. Choice of these occupations by high school seniors as often as by sophomores might be contributed to continuing or increasing employment opportunities which encourages high school graduates to seek jobs in these career areas.

The adult survey results, shown in Table IV, also revealed a high interest in wildlife and forestry; but production farming drew heavier response than either of these two student favored careers. Adults already in the working world feel a greater

need for training in mechanics (Agriculture and small engine). One hundred sixty-eight adults indicated strong interest in the horticultural fields of floristry, landscaping and nursery -- with 10% of these responses by women who selected "floristry" which has long been stereotyped as a feminine occupation. However, second choice selections appearing in the horticulture fields show landscaping as the choice of the greatest number of males, and both nursery and landscaping were chosen by more women as a second choice. Responses by adults show biases toward careers that are traditionally "male" or "female" on one hand and realistic selections based on practical experience in the labor force on the other.

TABLE II

JOB TITLES IN AGRICULTURAL OCCUPATIONS

AND NUMBER EMPLOYED

	Professional	Managerial	Technical	Sales	Clerical	Services	Total
Agriculture Supplies	10	28	10	40	30	107	225
Agriculture Mechanics	2	24	56	12	10	10	114
Horticulture Mechanics	2	21	19	8	3	6	59
Floriculture	22	43	29	20	7	35	156
Landscaping	35	10	5	15	15	46	126
Turf	23	--	10	--	--	42	75
Garden Center Sales	6	29	10	33	5	10	93

TABLE III

CAREER INTEREST SURVEY -- SUMMARY BY GRADE

AGRICULTURAL OCCUPATIONS

	FIRST CHOICE				SECOND CHOICE			
	9th	10th	11th	12th	9th	10th	11th	12th
Agriculture Mechanics	16	15	13	10	20	12	12	9
Production/Farming	53	36	37	29	22	32	14	22
Florist	12	10	18	10	14	10	22	9
Forestry	36	48	50	49	47	49	47	41
Conservation/ Ecology	19	26	13	10	32	28	31	27
Landscaping	5	10	5	11	15	12	16	14
Nursery	6	7	2	6	14	14	8	9
Agriculture Sales	1	3	2	3	4	1	3	4
Wildlife Conservation	100	72	69	60	129	133	90	76
SUB TOTALS	248	227	209	188	297	291	243	211
Meatcutting	4	3	1	6	5	6	6	4
Food Processing		1	2	1	3			
Food Sales	3	2	3	3	5	2	4	4
Small Engine Mechanics	19	7	8	3	32	16	17	10
Veterinarian	138	106	46	26	74	71	49	29
Agricultural Technology	4	3	3		9	1	7	8
Environmental Control Technology	14	17	10	16	4	17	11	12
TOTAL	430	366	282	243	429	404	337	278

TABLE IV

ADULT EVENING SCHOOL INTEREST SURVEY

SUMMARY - MALE AND FEMALE - - - AGRICULTURAL AREAS

CAREER TITLE	MALE		FEMALE		TOTAL	
	1st.	2nd.	1st.	2nd.	1st.	2nd.
Agriculture Mechanics	25	12	1	-	26	12
Production - Farming	40	21	4	6	44	27
Florist	8	2	107	113	115	115
Forestry	22	16	4	1	26	17
Conservation Ecology	16	9	7	7	23	16
Landscaping	19	30	9	17	28	47
Nursery	11	18	14	20	25	38
Agriculture Sales	5	7	4	4	9	11
Wildlife Conservation	34	45	7	10	41	55
TOTAL	181	160	157	178	332	338
Meatcutting	12	7	3	5	15	12
Processing of Food	1	3	1	1	2	4
Sales in Food Services	6	3	5	5	11	8
TOTAL	19	13	9	11	28	24
Small Engine Mechanics	42	32	3	-	45	32
Veterinarian	8	11	8	6	16	17
Agricultural Technology	3	8	2	2	5	10
Environmental Control Technology	9	8	-	2	9	10
Environmental Control	7	8	2	3	9	11
TOTAL	19	24	4	7	23	31
TOTAL	269	240	181	202	444	442

PILOT PROGRAM FOR CAREER EDUCATION IN THE ENVIRONMENT

The tremendous amount of interest in environmental careers expressed by the students in the survey prompted Berks Vocational-Technical School to join forces with the Nolde State Park Environmental Education Center in conducting a pilot program for selected high school seniors. Fourteen students representing eight school districts applied and were accepted for participation in the program. (See Appendix III-B for career choice of the participants). The specialized course that was formulated involved the following activities:

(1) classroom instruction in environmental careers related to air pollution, land use, energy problems, wildlife concerns, water pollution, land management and waste disposal. Included in the discussions was information on the social implications of such careers;

(2) visitation of resource facilities to observe the functions of the facilities and to gain an understanding of the job responsibilities of the personnel working at the facilities;

(3) field experience in an area of job responsibility related to their career choices;

(4) seminars with resource personnel directly involved professionally in the field of environmental problems;

(5) research reports for which the student investigates the advantages and the disadvantages of the career he has selected. (See Appendix III-C for an outline of the entire program).

Each of the students involved in the course were given a pre-test and post-test to serve as a means to evaluate the effectiveness of the program. The instrument used in this effort to measure attitudinal change and informational gain was an Environmental

Education Test developed by the Nolde Environmental Education Center. The following results were reported by the center to each of the high schools represented by the participants:

Student Group Average	Attitude toward Environment	Environmental Information	Career Information
	62% more positive	54% gained	70% gained
	15% remained same	23% remained same	
	23% less positive	23% failed to gain	30% failed to gain

Two other evaluative methods were employed for the program. One of these measurement tools covered only the field experience phase of the program. Business or agencies cooperated in providing field experience, and these "employers" evaluated the students through use of a rating scale covering attitude, responsibility, cooperativeness, and performance. Although all but one student received average or above average ratings, most of the employers expressed the comment that they were not able to give an accurate rating for the student because the work experience time was entirely too brief (See Appendix III-D for cooperating businesses). Students, too, felt that the field experience part of the program was not long enough to give them practical experience and suggested that the period of time for this aspect be lengthened in future courses.

The other evaluative tool was a questionnaire completed by each student. A compilation of responses showed that all phases of the program were rated as "good" or "excellent" by 38% of the students. "Career concepts" received the highest over-all rating

(92.3%). "Information from Resource Agencies", "Facilities Visited" and "Environmental Concepts" were rated good or excellent by 69% of the participants. The lowest over-all rating was given to "Opportunities for Individual Study", "Work Experience Program" and "Student Reports and Closing Seminar" (areas depending upon student initiative and acceptance of responsibility). Comments by the students on ways in which the program helped them with respect to their career choices revealed that it gave them a more realistic view of their chosen careers, provided them with the knowledge needed to evaluate whether their choice would meet their individual needs, and broadened their outlook through exploration of other career possibilities in the environmental field. (See Appendix III-E for questionnaire summation.) Results of the student questionnaire gave evidence that the program did achieve many of its objectives and did succeed to a large degree in developing appreciation of environmental occupations, awareness of career opportunities or limitations, and understanding of duties, training and requirements of open careers.

CONCLUSION AND RECOMMENDATIONS

The 1965 survey of Berks County agricultural businesses pointed out that the greatest need for employees with agricultural competencies appeared in the area of ornamental horticulture. The statewide survey results showed that the expected need for employees in ornamental horticulture during the following five years amounted to one-third of the total needs in agricultural business.[4] The demand for horticultural training is even greater today as a result of increased population, growth of suburbia, development of land for leisure activities and concern for the environment, particularly plant life. A survey of New Jersey manpower needs conducted by Rutgers University in 1971 shows that horticultural businesses and services is the third highest area of employment, out-ranked only by food distribution and lumber/building materials. The future opportunities (1976) shown in the New Jersey survey reveals that employment in horticultural businesses will be second highest with only the food distribution industry ranking above it as the highest area of employment.

This current survey of businesses in Berks County supports other data on this trend. This research reveals that 47 out of the 99 projected annual full-time employment opportunities will be in the area of horticulture and 81 of the 111 projected annual part-time positions will be in the horticultural areas of horticulture mechanics, floriculture, landscaping, turf and garden center sales.

4. Hoover, p. 9

However, while the survey of businesses points out employment needs in horticulture, the student survey reveals strong career interest in other areas, particularly wildlife conservation and forestry. Although there is much general interest in ecology and support for conservation, many areas, such as wildlife conservation, are functions of state and federal governments; and there seems to be little need and few advantages for private enterprise involvement. Therefore, employment in such fields is greatly controlled by the availability of public funds. Much discussion evolving from concern for the environment has not resulted in an equal amount of spending in this area; thus, at present, employment is limited. There needs to be an effort made by school administrators, counselors, and teachers to make students aware of this limitation. Furthermore, guidance and direction must be given to show students where employment opportunities are expanding so that students will seek training in fields where jobs will be available to them; and school curriculums must be changed and expanded to provide the training demanded by business and industry.

The need in Berks County for horticultural training as shown by the project became the foundation of a recommendation to the Director of Vocational Education that a program be established in Ornamental Horticulture. This recommendation was proposed by the Agricultural Education Craft Advisory Committee which is composed of 12 members representing various Agricultural businesses in the county. (See Appendix IV-A for committee members). This committee was established for the purpose of analyzing the research data and identifying from those results the true

community needs and then formulating recommendations on educational programs to address those needs. Although the committee was informed at the May meeting that expected state funds are now unavailable, members agreed that the need for a program in horticulture is clearly evident and that a pilot program should be initiated with a limited number of students to provide experiences in ornamental horticulture. Progress in the establishment of this program is dependent upon availability of necessary funds to support this undertaking by the Berks County Vocational-Technical Schools.

Due to limits of time, manpower and money, this project has attempted to research employment needs only in the seven occupational classes identified for the business survey. However, future efforts need to be directed toward investigation of the fastest growing off-farm agricultural industry - food processing and distribution. The Department of Commerce statistics in the Pennsylvania Industrial Census for Berks County shows 88 of 615 manufacturing establishments in the county in 1970 were engaged in the production of food and kindred products. These establishments employed a total of 5,565 persons - making it the fifth largest employer and the leading industry in number of establishments. A New Jersey report [5] shows an increase of nearly 14,000 employees in this industry in that state alone between 1971 and

5. Rutger's University, New Jersey Manpower Needs in Natural Resources and/or Agriculture, 1972

1976. No statewide study has been conducted in Pennsylvania on the present or future employment needs in the food industry in Pennsylvania. A small-scale effort was made by a graduate student in the Department of Agricultural Education, Pennsylvania State University, in 1969 to identify occupational titles and competencies in this industry.[6] However, only 25 of the largest food companies in Pennsylvania were included in the survey and none of these establishments were located in Berks County. The utmost importance of this industry to the lifeline of our society warrants survey of this industry to determine employment needs in Berks County and consequent development of educational programs to give students the training needed for job competency in this field.

6. Smeltz, LeRoy C., An Analysis of Occupational Titles and Competencies Needed in Agricultural Food Products Processing Plants, a Thesis, The Pennsylvania State University, 1969.

APPENDIX I-A

EMPLOYMENT OPPORTUNITIES AND NEEDED
COMPETENCIES IN AGRICULTURAL OCCUPATIONS

1. Name of company_____

2. Address_____

3. Name of person interviewed_____

4. Position of person interviewed_____

5. Telephone number of person interviewed_____

6. Main agricultural business of company (check one or more)

___1. Agricultural Supplies and Equipment

___2. Agricultural Machinery Sales and Service

___3. Agricultural Products: Livestock, Poultry and Dairy

___4. Agricultural Products: Fruits, Vegetables, Crops and Forestry Products

___5. Ornamental Horticulture

___6. Agricultural Resources

___7. Agricultural Services

7. Main agricultural function(s) of company (check one or more)

___1. Sales

___2. Services

___3. Purchasing

___4. Manufacturing

___5. Marketing

___6. Processing

___7. Other

8. Number of years company has been in business_____

9. Is there a labor union in the firm?_____

10. Total number of employees (including owners)

    a. Full-time_____

    b. Part-time_____ Number of months_____

	Job Title	Number of Employees	Level of Employment
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____

11. Would you be willing to serve on a consulting committee for the program? Yes_____ No._____

12. In reference to company policy, can this firm hire high school age personnel? Yes___ No___ Do you have a minimum wage?_____

13. Does company plan an expansion program within next 5 yrs._____
    If yes, what new jobs will be created?_____

14. Would your firm cooperate as a training station for high school students? Yes___ No___ Post-high students? Yes___ No_____

Job	Approximate number of weeks a student could be employed
_____	_____
_____	_____

15. Would a student employee be insured by your company?_____

16. Is there a shortage of trained or experienced workers in this occupation?_____.

17. What background training is needed for student employees?

    _____

    _____

18. Are there hazardous occupations or operations involved in this business? Yes_____ No._____ If yes, what?_____

APPENDIX I-B

JOB DESCRIPTION - - - - - - - GARDEN CENTER SALESPERSON

I. Does stockroom work
   A. Receiving stock
   B. Marking stock
   C. Other stockroom work
      1. Assemble certain merchandise
      2. Repair or repackage damaged merchandise

II. Performs housekeeping duties
   A. Sweeps floor
   B. Cleans shelves
   C. Waters plants
   D. Performs other housekeeping duties

III. Cares for stock on sales floor
   A. Places merchandise on shelves, racks, or stands
   B. Requisitions replacements of items from stockroom
   C. Performs routine duties
      1. Checks stock for damage
      2. Checks stock for misplacement
      3. Fills out merchandise order slips
         a. Merchandise not in stock but called for by customer (want slips)
         b. Stock which is running low

IV. Displays merchandise
   A. Correlates display with advertisements
   B. Determines the merchandise to be displayed
   C. Apportions space for the various merchandise
   D. Designs the layout
      1. Uses appropriate theme
      2. Color scheme
      3. Selects type of fixtures
      4. Sketches display
   E. Uses current trends to display special items
      1. As suggested by manufacturer
      2. Obtained from display department
      3. From customer suggestions
      4. Ideas from conferences
      5. Exchange suggestions from other department employees.
   F. Arranges specific displays on sales floor
      1. Works under directions from department head
      2. Works with window trimmer
      3. Uses all available information

V. Determines merchandise desired by the customer
   A. Item
   B. Type
   C. Size
   D. Use
   E. Quantity
   F. Approximate price

VI. Assists customer in selection of merchandise
- A. Emphasizes chief selling points
  1. Quality
  2. Size
  3. Durability
  4. Popularity
  5. Utility
  6. Convenience
  7. Appearance
  8. Ease of application
  9. Price

VII. Answers customers' questions and objections
- A. How to apply
- B. Rate of application
- C. When to apply
- D. Safety precautions
- E. Comparison of quality
- F. Compairson of cost

VIII. Suggests related merchandise
- A. Sprays
- B. Fertilizer
- C. Peat Moss
- D. Gloves
- E. Other related material

IX. Performs clerical duties of sales transaction
- A. Writes sales slips
  1. Duplicate or triplicate
  2. Designates merchandise on sales slip
  3. Uses own identifying number
  4. Uses name and address of customer
  5. Obtains customer's signature (if charge or C.O.D.)
- B. Uses credit card imprinter
- C. Uses cash register
  1. Rings up sale
  2. Makes change
- D. Wraps or packages items sold
- E. Loads certain items in customer's car
- F. Performs other clerical duties required in particular store

X. Keeps a unit control
- A. Counts stock
- B. Keeps accurate records
- C. Revises records
- D. Makes requisitions

XI. Performs periodic inventories
- A. Calls out items
- B. Records items on inventory sheet

APPENDIX II-A

BERKS COUNTY SCHOOLS

STUDENT CAREER INTEREST SURVEY

PLEASE HANDLE FORM CAREFULLY ● USE SOFT LEAD PENCIL ONLY

SEE REVERSE SIDE FOR INSTRUCTIONS.

STUDENT NAME _____
Last First Middle Initial

ADDRESS _____
Street

_____
City State Zip Code

Dear Parent:

This survey is designed to determine student interest in career education. The purpose is to provide a valuable tool to assist the schools in planning for the student's future. Please have your son or daughter complete this form and indicate his career interests to the best of his ability.

Please check and complete the following items as they may apply to your son or daughter.

☐ MY SON/DAUGHTER HAS A DEFINITE CAREER INTEREST BUT NOT IN ANY OF THE CAREERS LISTED. HE IS INTERESTED IN THE FOLLOWING CAREER.

_____

DO YOU PRESENTLY ATTEND A VO-TECH SCHOOL?
Yes ☐
No ☐

MAY WE RELEASE THE INFORMATION CONTAINED ON THIS FORM TO THE READING COMMUNITY COLLEGE?
Yes ☐
No ☐

MAY WE RELEASE THE INFORMATION CONTAINED ON THIS FORM TO THE EXPLORER POST OF B.S.A.?
Yes ☐
No ☐

#1 SCHOOL DISTRICT IN WHICH YOU LIVE

- ☐ Antietam
- ☐ Boyertown Area
- ☐ Brandywine Heights
- ☐ Conrad Weiser
- ☐ Daniel Boone Area
- ☐ Exeter Township
- ☐ Fleetwood Area
- ☐ Governor Mifflin
- ☐ Hamburg Area
- ☐ Kutztown Area
- ☐ Muhlenberg Township
- ☐ Oley Valley
- ☐ Reading
- ☐ Schuylkill Valley
- ☐ Tulpehocken
- ☐ Twin Valley
- ☐ Wilson
- ☐ Wyomissing Area

#2 POST HIGH SCHOOL EDUCATION PLANS

- ☐ Business Institute
- ☐ Technical Institute
- ☐ Community College
- ☐ Four Year College
- ☐ Trade School
- ☐ Other

#3 SEX

- ☐ Male
- ☐ Female

#4 GRADE

- ☐ 8
- ☐ 9
- ☐ 10
- ☐ 11
- ☐ 12

#5 LIST 2 CAREERS OF YOUR CHOICE. LIST THEM IN THE ORDER OF YOUR PREFERENCE.

CHOICE 1			CHOICE 2		
○0	○0	○0	○0	○0	○0
○1	○1	○1	○1	○1	○1
○2	○2	○2	○2	○2	○2
○3	○3	○3	○3	○3	○3
○4	○4	○4	○4	○4	○4
○5	○5	○5	○5	○5	○5
○6	○6	○6	○6	○6	○6
○7	○7	○7	○7	○7	○7
○8	○8	○8	○8	○8	○8
○9	○9	○9	○9	○9	○9

SEE REVERSE SIDE FOR CAREER INTEREST SELECTIONS.

THIS SECTION IS FOR YOUR PARENTS

ADULT EVENING SCHOOL INTEREST SURVEY

#6 MALE INTEREST

CHOICE 1			CHOICE 2		
○0	○0	○0	○0	○0	○0
○1	○1	○1	○1	○1	○1
○2	○2	○2	○2	○2	○2
○3	○3	○3	○3	○3	○3
○4	○4	○4	○4	○4	○4
○5	○5	○5	○5	○5	○5
○6	○6	○6	○6	○6	○6
○7	○7	○7	○7	○7	○7
○8	○8	○8	○8	○8	○8
○9	○9	○9	○9	○9	○9

#7 FEMALE INTEREST

CHOICE 1			CHOICE 2		
○0	○0	○0	○0	○0	○0
○1	○1	○1	○1	○1	○1
○2	○2	○2	○2	○2	○2
○3	○3	○3	○3	○3	○3
○4	○4	○4	○4	○4	○4
○5	○5	○5	○5	○5	○5
○6	○6	○6	○6	○6	○6
○7	○7	○7	○7	○7	○7
○8	○8	○8	○8	○8	○8
○9	○9	○9	○9	○9	○9

See Reverse Side for career interest selections

I have carefully reviewed the above survey with my son/daughter and approve of his selections.

_____ _____
DATE PARENTAL SIGNATURE

STUDENT CAREER INTEREST SURVEY FOR BERKS COUNTY SCHOOLS

FORM COMPLETION INSTRUCTIONS

1. Use soft lead pencil ONLY. DO NOT use ink.
2. Mark answer with a HEAVY BOLD MARK in the correct answer box. The mark should completely fill the box.
3. To correct an error, erase the mark COMPLETELY.

STUDENT ITEM INSTRUCTIONS

Name and Address - Please PRINT last name, first name and middle initial. Do the same for your street address, city and state (PA.).

ITEM #1_____ SCHOOL DISTRICT IN WHICH YOU LIVE. Determine the district in which you live and mark box accordingly.

ITEM #2_____ POST HIGH SCHOOL PLANS. Determine future school plans, if any, and mark accordingly.

ITEM #3_____ SEX. Mark box according to whether you are male or female.

ITEM #4_____ GRADE. Mark box according to what grade you are in now.

ITEM #5_____ CAREER SELECTION. We are asking you to make two (2) selections. Read the complete list of proposed careers. Discuss your interest with your parents, teachers, or guidance counselors. Determine your choices and mark in the boxes. Each career on the list is preceded by three numbers. These three numbers are the code for that career. Under Choice #1, mark the columns with these three numbers. Do the same with Choice #2.

ITEM #6___ _____
#7___ ADULT EVENING SCHOOL. Parents are asked if they have an interest in attending the Adult Evening School and would they mark their choice of careers using either Item #6 for Father, Item #7 for Mother, or both if both parents are interested. Any adult member of your family may utilize Item #6 and/or Item #7.

CAREER INTEREST SELECTIONS

AGRICULTURE

101 Agriculture Mechanics
102 Production/Farming
103 Florist
104 Forestry
105 Conservation/Ecology
106 Landscaping
107 Nursery
108 Sales
109 Wildlife Conservation

BUSINESS

201 Bank Teller
202 Bookkeeping
203 Data Processing
204 Equipment Sales
205 General Clerical
206 Hotel/Motel Management
207 Receptionist
208 Stenographer/Secretarial
209 Typist

DISTRIBUTIVE EDUCATION

301 Advertising
302 Cashier/Checker
303 Buying
304 Display
305 Fashion Design
306 Finance and Credit
307 Merchandising
308 Recreation
309 Sales

FOOD SERVICES

401 Baking
402 Chef
403 Catering
404 Meatcutting
405 Processing
406 Sales
407 Vending
408 Waiter-Waitress

HEALTH

501 Child Care
502 Dental Hygenist
503 Hospital Aide
504 Laboratory Technician
505 Medical Assistant
506 Medical Secretary
507 Practical Nursing
508 Therapist

TRADES

601 Air Conditioning
602 Aircraft Mechanics
603 Appliance Repair
604 Auto Body
605 Auto Mechanics
606 Barber
607 Building Maintenance
608 Office Machines Maintenance
609 Carpentry
610 Diesel Mechanics
611 Drafting
612 Electrical
613 Foundry
614 Hairstyling
615 Heating Service Mechanics
616 Heavy Equipment Operator
617 Hydraulics/Fluid Power
618 Interior Decorating
619 Machines Tool Operator
620 Masonry/Tile Setting
621 Cabinet Maker
622 Ornamental Ironwork
623 Machinist
624 Painting/Decorating
625 Plumbing/Pipefitting
626 Printing/Graphic Arts
627 Stereo and TV Repair
628 Refrigeration
629 Sheet Metal Mechanics
630 Seamstress
631 Sewing Machine Operator
632 Small Engine Mechanics
633 Tailoring
634 Upholstering
635 Warehousing
636 Welding

PROFESSIONAL

701 Accountant
702 Clergyman
703 Dentist
704 Engineer
705 Lawyer
706 Medical Doctor
707 Musician
708 Insurance
709 Optician
710 Realtor
711 Registered Nurse
712 Politics (Government)
713 Teacher-Educator
714 Veterinerian

TECHNOLOGY

801 Aeronautical Technology
802 Agricultural Technology
803 Communications Technology
804 Automotive Technology
805 Building Construction Technology
806 Chemical Technology
807 Civil Technology
808 Drafting Technology
809 Electrical Technology
810 Electronics Technology
811 Engineer Related Technology
812 Environmental Control Technology
813 Instrumentation Technology
814 Metallurgical Technology
815 Plastic Technology

OTHER

901 Airline Hostess
902 Armed Services
903 Artist
904 Environmental Control
905 Fire Protection
906 Model
907 News Reporter
908 Photographer
909 Police Work
910 Postal Services
911 Radio and TV Media
912 Truck-Bus Driver

APPENDIX III-A

CAREER EDUCATION IN THE ENVIRONMENT

APPLICATION FORM

INSTRUCTIONS:

1. Fill in the information requested below as completely as possible.

2. On the attached sheet, write an essay stating:

   a. Why you feel participation in this program will be of benefit to you.

   b. State your academic interests and goals and relate these to career goals. Include any current or long range interests. How do you expect this course to assist you in achieving these goals?

3. Request a complete high school transcript from the school office to be submitted with the application.

Selection of applicants will be based upon satisfactory completion of this application, student essay responses, and student course transcript reflecting background, interest and apparent need for training in environmental careers in relationship to geographic distribution. Completed applications and essays should be returned to the high school principal for submittal to the Nolde Environmental Education Center. Applications must be submitted on or before November 30, 1973. Applicants will be notified of their acceptance on or about December 18, 1973.

1. NAME (circle one): Mr.
   Miss _____
   First Middle Last

2. Parent or Legal Guardian: _____
   First Middle Last

3. Home Address: _____
   Street City (Town)

   _____
   State Zip Phone Number

4. School Address: _____
   School District

   _____
   School Name Building Street

   _____
   City (Town) State Zip

   _____
   Phone Number

5. Please state any special vocational or avocational interests you may have. _____

   _____

6. Briefly list or identify any work experience or training you may have had relating to environmental careers. Briefly describe the duties and responsibilities of your experience. (Ex: Nursery Aide - pruning, mulching, transplanting ornamental trees and shrubs.) If none, state none.

_____

_____

_____

_____

7. List any school or community organizations in which you have participated during the past two years. If special recognition or rank status was achieved, please state the nature of the recognition or office held.

_____

_____

_____

_____

_____

_____ _____
Student Signature Date

_____ _____
Parent or Legal Guardian Signature Date

_____ _____
High School Principal Signature Date

APPENDIX III-B

CAREER EDUCATION IN THE ENVIRONMENT

NOLDE FOREST STATE PARK ENVIRONMENTAL EDUCATION CENTER

STUDENT ENROLLMENT

January 21, 1974

SCHOOL	NO. OF STUDENTS	CAREER INTERESTS
Brandywine	1	Wildlife Conservation
Daniel Boone	2	Wildlife Management
Exeter	2	Forestry Environmental Resource Management
Fleetwood	1	Wildlife Enforcement
Governor Mifflin	2	Veterinarian Assistant Wildlife Management
Kutztown	2	Forestry Landscape Architecture
Tulpehocken	2	Oceanography Environmental Biology

APPENDIX III-C

TOPICAL OUTLINE

CAREER EDUCATION IN THE ENVIRONMENT

January 21, 1974 - May 24, 1974

Week	Date	An Environmental Perspective
I	January 21	Orientation and Registration
	January 22	Ecological Concepts
	January 23	Field Learning Experiences
	January 24	Man in the Web of Life
	January 25	Social and Cultural Origins of Environmental Problems
II		An Overview of Environmental Careers
	January 28	School Closed
	January 29	Career Decisions and Value Clarification
	January 30	Environmental Social Issues and Related Careers
	January 31	Environmental Physical and Biological Issues and Related Careers
	February 1	Seminar
III		Social Implications Of Environmental Careers
	February 4	Social Problems, Population and Urbanization
	February 5	Career Opportunities in Commercial And Public Health
	February 6	Career Opportunities in Private and Commercial Recreation
	February 7	Simulation Game in Urban Problems
	February 8	Career Opportunities in Political and Legal Fields

IV		Career Fields Related to Air Pollution Problems
	February 11	Air Pollution Problems and Career Opportunities
	February 12	Field Learning Experience Meteorology and Air Quality Monitoring
	February 13	Air Quality Monitoring and Control Specialists
	February 14	Air Pollution Control Occupations and Functions
	February 15	Career Fields Related to Air Pollution Problems
V		Career Fields Related to Land Use Problems
	February 18	Schools Closed
	February 19	Land Use Problems: Introduction
	February 20	Land Use Planning
	February 21	Careers in Soil Conservation: Field Trip
	February 22	Soil Science as a Career and Seminar
VI		Career Fields Related to Water Problems
	February 25	Environmental Aspects of Water Pollution
	February 26	Field Trip: To Local Watershed
	February 27	Field Trip: Wastewater Treatment Management
	February 28	Engineering Careers
	March 1	Water Quality Control and Inspection
VII		Wildlife Problems and Related Careers
	March 4	Environmental Aspects of Wildlife Abuse and Control

	March 5	Field Learning Experience Huntsdale Fish Hatchery
	March 6	Field Trip: Middle Creek Waterfowl Management Area
	March 7	Careers in Private Wildlife Management Field Learning experience Hawk Mountain Sanctuary
	March 8	Wildlife Biology and Technician Careers
VIII		Wildlife Careers: Ramification of Problem
	March 11	Wildlife Ecology and Research: Disease
	March 12	Wildlife Ecology and Research
	March 13	Wildlife Ecology: Population Problems Field Learning Experience Eastern Game Lands
	March 14	Wildlife Literature and Skill Careers
	March 15	Seminar
IX		Energy Problems and Related Careers
	March 18	Environmental Aspects of Energy Production and Consumption Field Learning Experience - Three Mile Island
	March 19	Environmental Careers in Private Enterprise - Field Learning Experience Gilbert Associates
	March 20	Surface Mine Reclamation Field Learning Experience
	March 21	Landscaping Practices and the Environment.
	March 22	Seminar
X		Land Management
	March 25	Environmental Impact Studies Field Learning Experience
	March 26	Watershed Management Field Learning Experience

	March 27	Recreational Use of Natural Resources Field Learning Experience
	March 28	Landscaping of Public Utility Right of Ways Field Learning Experience
	March 29	Careers in Landscape Architecture
XI		Environmental Careers in Education
	April 1	Organic Agriculture Field Learning Experience
	April 2	Solid Waste and Recycling
	April 3	Seminar
	April 4	Mont Alto State Nursery Field Learning Experience
	April 5	Formal Environmental Education Careers
XII		Work Experience
	April 8-10	Students assigned to Field Work
	April 11,12	Schools Closed
XIII		Work Experience
	April 15	Easter Monday - Voluntary Field Work
	April 15-19	Students Assigned to Field Work
XIV		Work Experience
	April 22-25	Students Assigned to Field Work
XV		Work Experience
	April 29 May 3	Students Assigned to Field Work
XVI		Work Experience
	May 6-10	Students Assigned to Field Work
XVII		Seminar Discussion Sessions on Career Selections
	May 13-17	Students Reports: Oral Presentation (some special site visitations may be made during this week on request of student group.

XVII		Seminar Discussion Session on Research
	May 20-23	Student Research Reports - Oral Presentation
	May 24	Post-Test and Critique

Note: This schedule is subject to change depending on arrangements made with resource persons and for site visitations.

APPENDIX III-D

COOPERATING BUSINESSES FOR PLACEMENT EXPERIENCE

FOR CAREER EDUCATION IN THE ENVIRONMENT STUDENTS

Job Description	Place of Employment
Garden Center Sales	Boscov's Department Store North North 5th Street Highway Reading, Pennsylvania
Biological Field Technicians	Metropolitan Edison Co. Employed by: Woodward Envicon, Inc. A Subsidiary of Woodward-Clyde Consul - 1373 Broad St.-Clifton, New Jersey 07012
Orchard Worker Trainee	Ontelaunee Orchards, Inc. Box #61 Leesport, Pennsylvania
Turf Maintenance Trainee	Moselem Springs Golf Club R.D.#2 - Box #535 Fleetwood, Pennsylvania 19522
Naturalist Trainee	Hawk Mountain Sanctuary Route #2 Kempton, Pennsylvania
Taxidermist Trainee	
Fisheries Biologist Trainee	Pennsylvania Fish Commission P.O. Box #1673 Harrisburg, Pennsylvania 17120
Urban Planner Trainee	Reading Model Cities Agency 433 Penn Street Reading, Pennsylvania

APPENDIX III-E

NOLDE FOREST STATE PARK

ENVIRONMENTAL EDUCATION CENTER

May 1974

CAREERS EVALUATION QUESTIONNAIRE

Thirteen students from 7 school districts in Berks County participated in a "Career Education in the Environment" Course at the Center from January 22 through May 24, 1974. The following is a summation of an evaluation questionnaire completed by the students at the end of the program.

1. The students were asked to give an over-all evaluation of the course in comparison to other school courses.

Excellent	5 - 9	69.2%
	4 - 4	30.8%
	3 - 0	0%
	2 - 0	0%
Poor	1 - 0	0%

One-hundred percent (100%) rated the over-all program as excellent or next to excellent in quality. None felt that the program was fair.

2. The program components of most benefit to the students as indicated by comments were:

Field Trips	7	29.2%
Work Experience	5	20.8%
All Beneficial	3	12.5%
Research	3	12.5%
Resource Speakers	3	12.5%
Group Discussions	3	12.5%

The students were widely split in selecting components of most benefit. Most students mentioned several aspects of the program as being beneficial. Field trips and work experience were identified by the students as being of most benefit.

3. The components of least benefit to the students was also identified by comment tabulation. The comments offered by the students were indicative of comparative relevancy after responding to 'item 2'.

Some Resource Speakers	7	41.2%
Research	4	23.5%
No Response/All Beneficial	3	17.6%
Some field trips	1	5.9%
Work experience	1	5.9%
Sitting in class inside	1	5.9%

By comments the students indicated that these segments were of

least benefit because they did not pertain to their individual interests.

4. Students were asked if they felt the amount of time spent on environmental issues was adequate.

Not long enough	7	53.8%
Adequate	6	46.2%
Too long	0	0%

Some of the comments offered were as follows:

- For the most part adequate - but may be not so much for me because I feel we had the least background in environment from our home school.

- Some things were not long enough and others were.

- I think that the whole program was not long enough. I think it should be extended to a full year.

- We missed out on several important environmental areas.

5. Students were asked if they felt the time allowed for work experience was adequate.

Not long enough	7	53.8%
Adequate	6	46.2%
Too long	0	0%

Some of the comments offered were as follows:

- Adequate if all five weeks are used....

- It was long enough to get us an adequate understanding of what it is about.

- I had little experience, but what I had was great.

6. In response to this item inquiring about the students desire to have the program offered over a longer period of time, the following resulted:

Yes	11	84.6%
No	2	15.4%

Eighty-four percent (84.6%) indicated a desire for a longer time of involvement.

7. Students were asked to rate various components of the program on a scale of 1 to 5, one being poor and five excellent.

a. Environmental Concepts

Excellent	5 - 4	30.8%
	4 - 5	38.5%
	3 - 4	30.8%
	2 - 0	0%
Poor	1 - 0	0%

b. Discussion Sessions

Excellent	5 - 4	30.8%
	4 - 4	30.8%
	3 - 4	30.8%
	2 - 1	7.7%
Poor	1 - 0	0%

c. Instructor personal assistance

Excellent	5 - 4	30.8%
	4 - 3	23.0%
	3 - 5	38.5%
	2 - 1	7.7%
Poor	1 - 0	0%

d. Library Resources

Excellent	5 - 2	15.4%
	4 - 5	38.5%
	3 - 2	15.4%
	2 - 4	30.8%
Poor	1 - 0	0%

e. Opportunity Individual Study

Excellent	5 - 3	23.0%
	4 - 2	15.4%
	3 - 5	38.5%
	2 - 2	15.4%
Poor	1 - 1	7.7%

f. Information from Resource Agencies

Excellent	5 - 1	7.7%
	4 - 8	61.5%
	3 - 2	15.5%
	2 - 2	15.4%
Poor	1 - 0	0%

g. Resource Speakers

Excellent	5 - 3	23.0%
	4 - 5	38.5%
	3 - 5	38.5%
	2 - 0	0%
Poor	1 - 0	0%

h. Facilities Visited

Excellent	5 - 6	46.2%
	4 - 4	30.8%
	3 - 3	23.0%
	2 - 0	0%
Poor	1 - 0	0%

i. Work Experience Program

Excellent	5 - 3	23.0%
	4 - 3	23.0%
	3 - 5	38.5%
	2 - 2	15.4%
Poor	1 - 0	0%

j. Student Reports and Closing Seminar

Excellent	5 - 1	7.7%
	4 - 5	38.5%
	3 - 6	46.2%
	2 - 1	7.7%
Poor	1 - 0	0%

k. Career Concepts

Excellent	5 - 4	30.8%
	4 - 8	61.5%
	3 - 1	7.7%
	2 - 0	0%
Poor	1 - 0	0%

At least thirty-eight percent (38%) of the students rated all phases of the program as good or excellent. "Career Concepts" received the highest over-all rating (92.3%) while "Facilities Visited", "Information from Resource Agencies" and "Environmental Concepts" were rated good or excellent by at least sixty-nine percent (69%) of the participants. "Opportunities for Individual Study", "Work Experience Program" and "Student Reports and Closing Seminar" received the lowest over-all rating. It is interesting to note that the success of these last three segments depended upon student initiative and willingness to accept responsibility.

8. Students were asked in which grade level they felt the program should be offered.

10th	1	7.7%
11th	5	38.5%
12th	6	46.2%
No.Resp.	1	7.7%

9. The participating students were requested to comment on ways in which the program helped them with respect to their career choices. The following comments were offered:

- I came with very vague ideas on what I wanted to do and now they are much more definite. I learned facts and opinions to help me make this decision.
- I at least know what is going to be expected of myself and also what to expect.
- It was positively shown to me the truth about my choice and others.
- It gave me background, then specific information for my career area.
- It showed me what I really wanted because I did change my career choice.
- Made me think if this was the right course for me.
- It made me see both sides of all possible careers. I had to disregard labels applied to certain jobs and really consider how I feel towards that career.
- It showed me that my first choice would not meet my needs, - it showed me I could fulfill my needs.
- The program has given a better understanding of horticulture, brought me closer to understanding and identification of plants and has also given me a job in that area.

- It has changed, gave me an over-all feeling of other careers.

- Completely straightened me out in relation to Forestry.

- It helped me see practicalities and reality in my career choice.

- Given me a broader view of jobs and what they are all about

10. Students were asked if they had changed their mind about their career choice since entering the program, and to describe the change if one has occured.

No	7	58.3%
Yes	6	46.2%

The following comments were offered:

- I first came interested in going to Pre-Vet, now am interested in Assistant to a Veterinarian, or Taxidermy.

- From Environmental Education to Field Biology.

- From Forestry to Landscape Architecture.

- I went from a definite choice to a broad consideration. Before I had little idea what was involved with my choice.

- From Oceanography to Aquatic Biology.

- Very broad view in what I wanted to do and feel I should have more time.

- My basic choice has not been changed, but I am more definite about what I want to do and more sure I want it ...

11. In response to this item, asking the students to evaluate their instructors and offer recommendations for improvement with negative comments, the following types of comments were offered:

- More private consultation.

- Very willing to give individual assistance and to go out of their way for students. However, I felt I could have used more explanation on what I could have done on my project research; I got mostly vague answers on this.

- They did a good job, but the only problem was they had so many other things to do in addition to this program.

- The instructors did a great job of instruction and getting field trips to various places. They also came through on work program. They also did a great job of just putting up with us.

- Should have worked more on work experience programs.

12. Students were given the opportunity to evaluate their fellow classmates for performance and class contribution. Nine students were awarded A's by their fellow students and four received B's.

13. Students were asked if they would recommend that all environmentally oriented high school students participate in a career program such as this. The following responses and comments were recorded:

Yes	8	61.5%
No	4	30.8%
Undecided	1	7.7%

- If too many students would attend the program then there could not be any individual help.

- Because it is an excellent way to find out more about their field to see if they are really interested, and to present alternate choices.

- It may help them to decide if this is what they really want to get into.

- But only if they weren't sure of exactly what field they wanted to get into. They can't lose from it; all they can do is gain. Even if by the end they decide an environmental career is not for them, they have learned valuable information; knowledge is never a waste.

14. Students were asked if they felt the research and career report assignments were of benefit to them. The following responses and comments were recorded:

Yes	11	84.6%
No	2	15.4%

- I did learn a few things from doing my reports, but I learned more from other parts of program, such as work experience, visiting facilities, and resource persons and discussions.

- Mine gave me an excellent background into my specific field.

- The career gave the students an understanding of his career.

15. Students were requested to "offer any recommendations or other criticisms of the program". The following comments were offered:

- Work on bettering the work experience.

- Should buy a Bus so when he insisted on driving he could take us all along.

- Program longer, and don't let the program cease, it is good.

- Have the classes end at 3 o'clock.

- The idea of work experience in the program was excellent, but placement should have been looked into sooner since there was such a problem in finding jobs, this is one reason the program should be longer, environmental issues could be gone into in more depth. I guess I think it should be longer so we could just have had more of everything (visits, speakers, etc.). If a student is uncertain about career choice, perhaps he could get more than one job experience.

APPENDIX IV-A

Berks Vocational-Technical School

CRAFT ADVISORY COMMITTEE
AGRICULTURAL EDUCATION

Frank Brown, Manager
F. M. Brown's Sons, Inc.
Birdsboro, Pennsylvania
Class: Agricultural Supplies

Fred Davis
Davis Florists
366 E. Penn Street
Wernersville, Pennsylvania
Class: Floriculture

Roy Hetrick
R.D.#2
Bernville, Pennsylvania
Class: Production Farming

LeRoy W. Hoffman
General Operations Manager
Redcheek, Inc.
Fleetwood, Pennsylvania
Class: Food Processing

Carl Keener, Manager
Stanley A. Klopp, Inc.
Bernville, Pennsylvania
Class: Agriculture Mechanics

Byron Knoll, Superintendent
Moselem Springs Country Club
R.D.#2 Box #535
Fleetwood, Pennsylvania
Class: Turf

Ronald Frederick
Vocational Agriculture Department
Twin Valley High School
R.D.#2
Elverson, Pennsylvania
Class: Vocational Agriculture

Paul Ray, Manager
Maiden Creek Farm Supply, Inc.
Calcium Road
Blandon, Pennsylvania
Class: Agriculture Mechanics

John Reber
R & R Lawn & Tree Care
744 Fritztown Road
Sinking Spring, Pennsylvania
Class: Landscaping

John Short, Buyer
Boscov's Department Store
4500 Perkiomen Avenue
Reading, Pennsylvania
Class: Garden Center Sales

John Slote
Slote's Nursery
R.D.#1
Mohnton, Pennsylvania
Class: Landscaping

Eric S. Ulrich
Metropolitan Edison Company
Reading, Pennsylvania
Class: Landscaping

Harvey Smith
Regional Vocational Consultant
Eastern Regional Field Services
4577 Tighman Street
Allentown, Pennsylvania
Class: Vocational Agriculture